

538,741

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
8 July 2004 (08.07.2004)

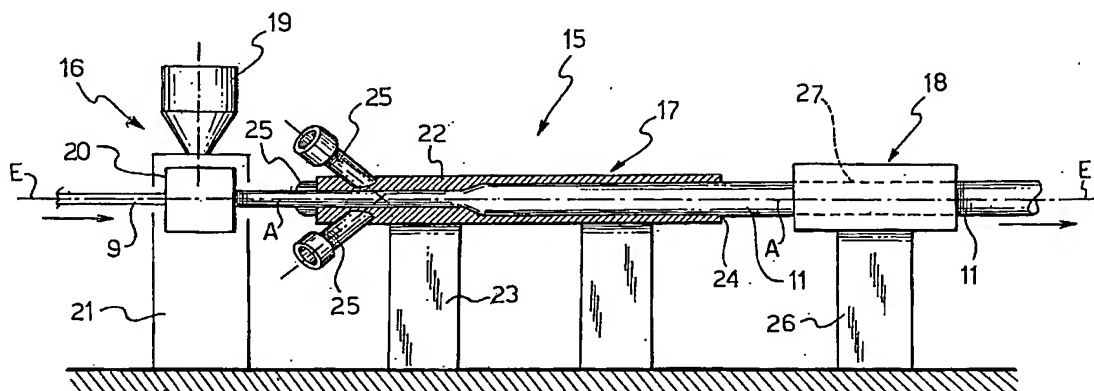
PCT

(10) International Publication Number
WO 2004/057626 A1

- (51) International Patent Classification⁷: **H01B 13/14**
- (21) International Application Number:
PCT/IT2002/000824
- (22) International Filing Date:
23 December 2002 (23.12.2002)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except US): **PIRELLI & C. S.P.A.** [IT/IT]; Via Gaetano Negri, 10, I-20123 Milano (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **BALCONI, Luca** [IT/IT]; Via Mattei, 8, I-20091 Bresso (IT). **BAREGGI, Alberto** [IT/IT]; Via Aselli, 35, I-20133 Milano (IT). **BELLI, Sergio** [IT/IT]; Via Maestri del Lavoro, 8, I-57126 Livorno (IT).
- (74) Agents: **BOTTERO, Claudio et al.**; Porta Checcacci & Associati S.p.A., Via Trebbia, 20, I-20135 Milano (IT).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report

[Continued on next page]

(54) Title: METHOD FOR PRODUCING A COATING LAYER MADE OF EXPANDABLE AND CROSS-LINKABLE MATERIAL IN A CABLE



(57) Abstract: A method is described for producing a cable (1, 101) including: at least one transmissive element (2), such as for example an element transmitting electrical energy or optionally optical signals as well; and an expanded and cross-linked coating layer (5) in a radially outer position with respect to said at least one transmissive element (2), said coating layer (5) comprising a composition including an expandable and cross-linkable polymeric material. The method comprises the following steps of: a) extruding the composition; b) forming a coating layer made of expandable and cross-linkable polymeric material with the composition thus extruded; c) expanding the coating layer made of expandable and cross-linkable polymeric material; and d) cross-linking the above-mentioned coating layer made of expandable and cross-linkable polymeric material. The method of the invention provides that the above-mentioned expanding and cross-linking steps c) and d) are carried out by heating the coating layer made of expandable and cross-linkable polymeric material at atmospheric pressure by means of a suitable heating fluid. The method of the invention allows to attain a saving in production time and costs with respect to the prior art methods.

WO 2004/057626 A1